

What is claimed is:

1. A Bluetooth wireless communication apparatus for identifying devices connectable to ad-hoc networks, comprising:

a user interface enabling a user to select at least one desired device among peripheral devices ; and

a control unit for providing, through the user interface, information on the peripheral devices connectable to a wireless communication device, and, if said at least one desired device is selected through the user interface, establishing a connection to only said at least one desired device, out of the peripheral devices.

2. The Bluetooth wireless communication apparatus of claim 1, wherein the control unit sends an inquiry to search for said connectable peripheral devices, receives inquiry responses including device information from said at least one of said peripheral devices that has received the inquiry, and provides information on said at least one of the peripheral devices that received the inquiry.

3. The Bluetooth wireless communication apparatus of claim 2, wherein the device information is contained in unused portions of a frequency hop synchronization (FHS) packet used for an inquiry response message.

4. The Bluetooth wireless communication apparatus of claim 1, further comprising a liquid crystal display (LCD) unit for displaying various

information, and the various information on the peripheral devices being displayed on the LCD unit in a form of a character string.

5. The Bluetooth wireless communication apparatus of claim 1, further comprising a speaker for producing sound, and the information on the peripheral devices being indicated by sound through the speaker.

6. The Bluetooth wireless communication apparatus of claim 1, wherein the control unit sends an inquiry to search for a first group of peripheral devices in a directly connectable wireless range, receives inquiry responses including device information from at least one of the peripheral devices that has received the inquiry, and, if service attributes of said at least one of the peripheral devices is collected from the received device information and said at least one of the peripheral devices has one of a group ad-hoc network ability and scatternet ability, searches for said at least one of the peripheral devices connectable to corresponding devices and further displays the connectable corresponding devices as information on said at least one of the peripheral devices.

7. The Bluetooth wireless communication apparatus of claim 6, wherein , if the received service attributes one of support a group ad-hoc network service and indicate the scatternet ability, the control requests the corresponding devices to discover more peripheral devices.

8. A wireless communication method of indicating devices connectable to ad-hoc networks for a Bluetooth-embedded wireless communication apparatus which has an input unit for enabling a user to input desired values and a display unit for displaying various information, the wireless communication method comprising steps of:

providing through the display unit information on peripheral devices in a range connectable to the wireless communication apparatus; and

if a device to which the user wants to connect is selected through the input unit, establishing a connection to only the device to which the user wants to connect out of the peripheral devices.

9. The wireless communication method of claim 8, wherein the step of providing information through the display unit comprises steps of:

sending an inquiry to search for the connectable peripheral devices; and

receiving at least one inquiry response comprising device information from at least one of the peripheral devices that has received the inquiry, and providing information on said at least one of the peripheral devices that has received the inquiry.

10. The wireless communication method of claim 9, wherein the device information is contained in unused portions of a frequency hop synchronization (FHS) packet used for an inquiry response message.

11. The wireless communication method of claim 8, wherein the Bluetooth wireless communication apparatus further comprises a liquid crystal display (LCD) unit for displaying various information, and the various information on the peripheral devices being displayed on the LCD unit in a form of a character string.

12. The wireless communication method of claim 8, wherein the Bluetooth wireless communication apparatus further comprises a speaker for producing sound, and the information on the peripheral devices being indicated by sound through the speaker.

13. The wireless communication method of claim 8, wherein the step of providing information through the display unit comprises steps of:

    sending an inquiry to search for peripheral devices in a connectable wireless range, and receiving inquiry responses including device information from at least one of the peripheral devices that has received the inquiry; and

    determining, if service attributes of at least one of the peripheral devices are collected from the received device information and said at least one of the peripheral devices has one of group ad-hoc network ability and scatternet ability, which of said at least one of the peripheral devices are connectable to corresponding devices and displaying the connectable corresponding devices as information on said at least one of the peripheral devices determined to be connectable to corresponding devices.

14. The wireless communication method of claim 13, further comprising a step of, if the received service attributes support a group ad-hoc network service and indicate the scatternet ability, requesting the corresponding devices to discover more peripheral devices.

15. A wireless communication method of identifying devices connectable to an ad-hoc network for a Bluetooth-embedded wireless communication apparatus which has an input unit for enabling a user to input desired values and a display unit for displaying various information, the wireless communication method comprising steps of:

providing, through a display unit, information on peripheral devices in a range connectable to the wireless communication apparatus; and

if a device to which the user wants to connect is selected through the input unit, a connection to the device to which the user wants to connect.